



Description

Doc: Architect/ Engineer Specifications
Model: BX-80N
Desc: Outdoor PIR Intrusion Detector with BoundaryGard™

NOTE: Words/statements within square brackets [] may be included when appropriate, or when selection is required.

The Intrusion Detector[s] shall operate on the Verified Intrusion principle using simultaneous Passive Infrared (PIR), and shall be Listed by Underwriter's Laboratories, Inc..

OUTPUT AND ENCLOSURE

[Each] [The] detector shall provide the detection, signal processing, alarm relay, ~~and operating power circuitry~~ in the same enclosure; and shall provide an alarm relay actuation upon the detection of an intruder moving into or through its protection pattern. The enclosure shall have an IP rating of 55, and shall be ready for mounting to an indoor or outdoor wall without modification

The total weight shall be 14 oz. (400g).

[Each] [The] detector shall feature a single piece electronics board whose circuitry is specifically designed for this detector alone, and which has sustained a substantial "Burn-in" test for several days. The board shall be mounted to a housing with the cover being secured with a screw. The case shall include easy wiring knockouts, as well as M4 Mount screws x 20 x 2. The case shall have a smart, stylish design that shall blend in with any type of architecture.

LED OPERATION

The detector[s] shall incorporate a single, Red LED to indicate the operating conditions. Red LED illuminated shall indicate an alarm condition. Red LED not

illuminated shall indicate a non-alarm condition.

POWER REQUIREMENT

The detector[s] shall be capable of operating from a DC power source rated within the range of 10 volts DC to 28 volts DC, and shall draw a nominal 28 milli-amps (mA) during normal operation, and a maximum of 38 milli-amps (mA).

ALARM OPERATION

A condition of alarm shall occur when the alarm conditions are met. The Sensitivity shall be 3°F (1.6°C) at 2ft/sec. (0.6m/sec). The Detectable Speed shall be 1 ~ 3 ft/sec. (0.3 ~ 1m/sec.). The Alarm Period shall be 2.0 ± 1 seconds. The Alarm Output shall be capable of handling 28VDC, 0.2A max., in 2 relay outputs of N.O. and N.C.. These separate Form A and Form B relays shall enable the simultaneous operation of local alarm, annunciation, and automation functions. [Each] [The] detector shall signal the condition of alarm using a N.C. or N.O. Reed Relay with terminal strip connections. [Each] [The] detector shall also contain an N.C. tamper switch that shall open when the cover is removed. An optional Metal Guard (MG-1) shall be available to further protect the detector[s] from tampering or vandalism.

[Each] [The] detector shall feature BoundaryGard™ technology to provide more reliable protection and security options. BoundaryGard™ shall protect a building's exterior by detecting intruders, and shall also be capable of providing a

deterrent with a sounder before the break-in occurs. The Beeping Period shall be 15 ± 1 seconds. The Volume of the Audible Alarm Indicator shall be approx. 70dB (at 1 meter distance).

To accomplish PIR detection, [each] [the] detector shall contain a sealed Pyro-Electric sensor peaked for the detection of near-infrared energy in the 10-micron region.

SENSOR STABILITY

To guard against false activations caused by RF interference, the detector shall incorporate RFI Protection capability that cancels over 50% of popcorn noise. This noise reduction circuitry shall adjust to background disturbances, in order to help reduce false activations while maintaining catch performance. No alarm shall occur at 20V/m from 100MHz to 1GHz.

[Each] [The] detector shall be rated to maintain maximum detection sensibility even in high temperature conditions. The operating range shall be [minus 4° Fahrenheit to plus 122° Fahrenheit] [minus 20° Celsius to plus 50° Celsius]. [Each] [The] detector shall also tolerate a humidity rate of 95% max. No false alarm shall occur within these operating conditions.

[Each] [The] detector shall also feature a Layered Detection Pattern that shall discriminate between large and small objects in the detection area. Only when both the upper and the lower detection ranges detect movement shall an alarm be generated.

The detector[s] shall be easily mounted at the center of the detection area and shall protect both sides. One person shall be able to install [each] [the] detector, and there shall be no need to align transmitters and receivers.

To enable proper circuit operation, the detector[s] shall incorporate a PIR self-test with defaults. When the device is turned on, the warm-up period shall be approx. 45 seconds, during which time the LED blinks.

LENS AND DETECTION PATTERN

[Each] [The] detector shall contain a durable and high grade UV resistant Fresnel lens that shall focus received infrared energy onto the sensors. This patented advanced PIR technology shall create a narrow, 80ft. – long detection area that shall protect wide horizontal areas, such as the perimeter of a building. The Coverage Range shall be 80 ft (24m), with 40ft (12m) on either side. There shall be 4 detection zones, with 2 zones on each side. The detection range shall also be adjustable to avoid detecting unwanted objects.

The mounting height of [each] [the] detector shall be 2.7 ~ 4ft (0.8 ~ 1.2m).

MODEL

The Intrusion Detector shall be model BX-80N (Outdoor PIR Intrusion Detector with BoundaryGard™) [with] [optional Metal Guard: MG 1].